

App. No. 09/930,659
Amendment Dated August 23, 2005
Reply to Final Office Action of July 25, 2005

Listing of claims:

1. (Previously presented) A computer-readable medium having a data structure stored thereon for use in synchronizing an object between a server and a client, the data structure comprising:

a synchronization message including a plurality of message portions for grouping synchronization activities in a single message, wherein the message portions include:

a version portion that indicates which version of the data structure is being used to synchronize the object;

a command portion that indicates a synchronization action to take to synchronize the object between the server and the client; and

if an error occurs while the synchronization action is performed, a response portion that indicates that the synchronization action was not successful.

2. (Original) The computer-readable medium of claim 1, wherein the command portion includes a fetch portion, having an object ID, indicating that the server should send an object associated with the object ID to the client.

3. (Original) The computer-readable medium of claim 2, wherein the fetch portion indicates that only the object should be sent.

4. (Original) The computer-readable medium of claim 1, wherein the command portion includes a window size portion that indicates a maximum number of objects for the server to send.

5. (Original) The computer-readable medium of claim 1, wherein the command portion includes a more available portion that indicates that the server has more objects available to send to the client.

6. (Original) The computer-readable medium of claim 1, further comprising an options portion that includes another data structure.

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7. (Previously presented) The computer-readable medium of claim 6, wherein the another data structure is used to send additional commands between the client and the server.
8. (Previously presented) The computer-readable medium of claim 6, wherein the another data structure is used to send data between the client and the server.
9. (Original) The computer-readable medium of claim 1, further comprising if the client requests updates from the server, a get changes portion that indicates that the server should send updates to the client.
10. (Original) The computer-readable medium of claim 1, further comprising if the client sends an object to be added to the server, a response portion that indicates which ID the server associated with the object.
11. (Original) The computer-readable medium of claim 10, wherein the response portion further indicates an ID the client sent with the object.
12. (Original) The computer-readable medium of claim 1, wherein the object is associated with a plurality of other objects to be synchronized.
13. (Original) The computer-readable medium of claim 1, wherein the data structure is embedded within other data.
14. (Original) The computer-readable medium of claim 1, wherein the data structure is embedded in an email.
15. (Original) The computer-readable medium of claim 1, wherein the data structure is transmitted using a hypertext transport protocol.
16. (Original) The computer-readable medium of claim 1, wherein the command portion includes a data portion that contains data associated with the object.

17. (Original) The computer-readable medium of claim 1, further comprising a status portion that indicates a status of performing the synchronization action.

18. (Previously presented) The computer-readable medium of claim 1, wherein the data structure further comprises:

another command portion that indicates another synchronization action to take to synchronize another object between the server and the client; and

if an error occurs while the other synchronization action is performed, another response portion that indicates that the other synchronization action was not successful.

19. (Previously presented) The computer-readable medium of claim 18, wherein the data structure further comprises:

if the client requests information, an information response portion that contains the requested information.

20. (Previously presented) The computer-readable medium of claim 1, wherein the data structure further comprises:

if the client requests information, an information response portion that contains the requested information.

21. (Previously presented) A system for synchronizing an object, comprising:
a server configured to receive a data structure, the data structure including a plurality of portions for grouping synchronization activities in a single data structure that is received by the server, wherein the portions include:

a version portion indicating which version of the data structure is being used to synchronize the object; and

a command portion that indicates a synchronization action to take to synchronize the object;

a mobile device coupled to the server, wherein the mobile device is configured to send the data structure to the server to synchronize the object.

22. (Previously presented) The system of claim 21, wherein the server is further configured to send another data structure having:

a second version portion indicating which version of the another data structure is being used to synchronize the object;

if an error associated with the synchronization action occurred while processing the data structure, a response portion that indicates the error.

23. (Original) The system of claim 22, wherein if an error does not occur, the data structure omits the response portion.

24. (Previously presented) The system of claim 22, wherein the other data structure further comprises:

if the mobile device requests information, an information response portion that contains the requested information.

25. (Original) The system of claim 23, wherein the other data structure further comprises a command portion that indicates another synchronization action to take to synchronize another object between the server and the mobile device.

26. (Original) The system of claim 24, wherein the server is further configured to update data on another server using the data structure.

27. (Original) The system of claim 26, wherein the server comprises a proxy server.

28. (Original) The system of claim 27, wherein the proxy server associates an object on the mobile device with an object on the other server.

29. (Original) A mobile device having a data store and computer-executable instructions, the computer-executable instructions, comprising:

formatting a synchronization message having a plurality of message portions for grouping synchronization activities in a single message, wherein the message portions include:

a version ID portion; and

a commands portion, the commands portion including information that defines changes to be made to a server to cause data on the server system to be synchronized with data on the data store; and
transmitting the formatted message to the server.

30. (Original) The device of claim 29, wherein the synchronization message further includes:

if an error occurred while the mobile device was updating the data store, a response portion that indicates that the update was not successful.

31. (Original) The device of claim 30, wherein the synchronization message further includes:

if the mobile device requests information, an information response portion that contains the requested information.

32. (Original) The device of claim 30, wherein the commands portion includes a fetch portion, having an object ID, indicating that the server should send an object associated with the object ID to the mobile device.

33. (Original) The device of claim 30, wherein the commands portion includes a window size that indicates a maximum number of objects for the server to send.

34. (Previously presented) A server having a data store and computer-executable instructions, the computer-executable instructions, comprising:

receiving an update synchronization message having a plurality of message portions for grouping synchronization activities in a single message, wherein the message portions include:

another version ID portion; and

another commands portion, including information that defines changes to be made on the server to cause the data store to be synchronized with data on a mobile device; and

sending a response synchronization message having a plurality of message portions for grouping synchronization activities in a single message, wherein the message portions include:

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a version ID portion; and
a commands portion, including information that defines changes to be made on the mobile device to cause the data store to be synchronized with data on the mobile device; and
if an error occurred while processing the update synchronization message, a response portion that indicates that synchronization was not successful.

35. (Original) The server of claim 34, further comprising
a parser for parsing the update synchronization message; and
a generator for generating the response synchronization message.

36. (Original) The server of claim 35, wherein the update synchronization message and the response synchronization message each are encoded using a markup language.

37. (Original) The server of claim 36, wherein the markup language is an extensible markup language.